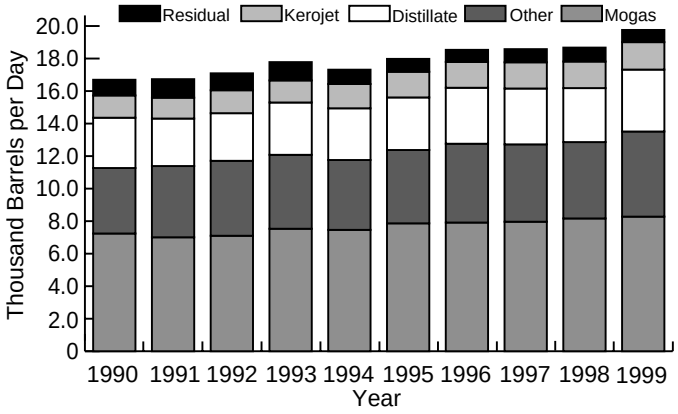
Highlights

November temperatures were considerably warmer than the seasonal norm. On average, temperatures were 11.7 percent warmer than this time last year and 18.8 percent warmer than normal for this time of year.[1] While weather-related demand for petroleum products was soft this month, moderate to strong economic growth and precautionary buying ahead of the new calendar year more than compensated. November marked yet another month of expansion for the growing U.S. economy.[2] Total demand for refined petroleum products, measured as product supplied, set a **November**[3] **record high** at an average of 19.8 million barrels per day (Table & Figure H1).

Figure H1. Total Demand, 1990-Current, Comparison in November for Petroleum Products



Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

November 1999 highlights include:

- Finished motor gasoline **demand** set a **record high for the month** at an average of 8.3 million barrels per day. **Stocks** of finished motor gasoline ended the month at 154.3 million barrels, 13.2 million barrels less than this time last year.

- Distillate fuel oil **demand** also set a **record high for the month** at 3.8 million barrels per day. Total distillate fuel oil **stocks** ended the month at a 20.8 million barrel deficit compared to last November.

- Residual fuel oil **demand** dropped to 750 thousand barrels per day, the lowest daily average for November since 1996. **Production** was the **lowest for November in more than three decades** at 605 thousand barrels per day.

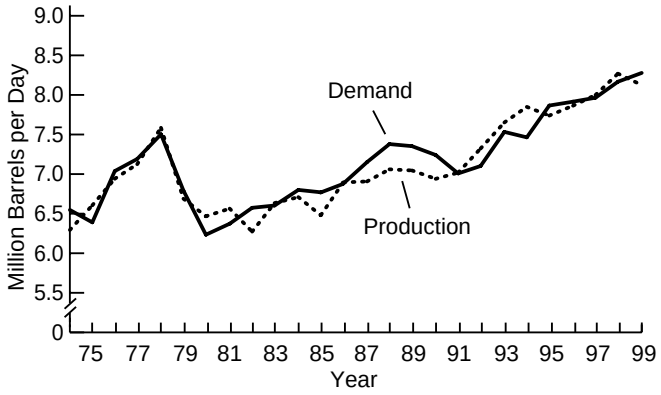
- Kerosene-type jet fuel **demand** set the **November record** at a high of 1.7 million barrels per day. **Production** of kerosene-type jet fuel was down 76 thousand barrels per day from the November record high. Kerosene-type jet fuel **stocks** totaled 41.1 million barrels by month-end.

- Thanks to mild weather, propane **inventories** experienced a smaller than normal November draw ending the month at 56.1 million barrels.

- Crude oil domestic **production** averaged 6.1 million barrels per day, **the lowest average for the month in 49 years**. **Imports** of crude oil averaged 8.2 million barrels per day, down 8.3 percent compared to last November's record for the month. Excluding the crude oil **stocks** held in the Strategic Petroleum Reserve (SPR), by months end, stocks were **below 300 million barrels**.

- Crude oil inputs averaged 14.8 million barrels per day, the highest average for the month since the 1978 record.

Figure H2. Finished Motor Gasoline, Year-to-Year November Comparisons, 1974-1999



Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

Motor Gasoline

Finished motor gasoline **demand** set a **record high for the month** at an average of 8.3 million barrels per day (Figure H2). Along with crude oils price recovery, gasoline prices too have been increasing. Conventional motor gasoline prices were up over a quarter compared to this time last year with November prices averaging $1.274 per gallon, including taxes (Figure H3).[4] **Production** of finished motor gasoline reached the second highest daily average for the month at 8.1 million barrels per day. While **imports** of finished motor gasoline fell to their lowest average for a month this year, they were in the upper range for November at 253 thousand barrels per day. **Stocks** of finished motor gasoline ended the month at 154.3 million barrels, the lowest level since August 1997 and the lowest level for the month since 1996. Compared to last November's motor gasoline stock levels, reformulated stocks were down 8.1 percent at 39.3 million barrels, oxygenated stocks were down 12.4 percent at 0.9 million barrels, and other finished stocks were down 7.8 percent at 114.1 million barrels.

[1] "Heating Degree Day Data Monthly Summary, Monthly Data for November 1999", *National Oceanic and Atmospheric Administration*, accessible via the Internet at http://www.cpc.ncep.noaa.gov/.
[2] "The Beige Book Summary", *Federal Reserve Board*, December 8, 1999, accessible via the Internet at http://www.bog.frb.fed.us/fomc/beigebook/1999/.
[3] November 1999 data are monthly-from-weekly estimates based on the Energy Information Administration's Weekly Petroleum Supply Reporting System.
[4] "Table 16. U.S. Retail Motor Gasoline and On-Highway Diesel Fuel Prices, 1998 to Present", *Weekly Petroleum Status Report*, November 26, 1999, p. 27.

Table H1. Petroleum Supply Summary

(Million Barrels per Day, Except Where Noted)

Category	1999			1998	January - November	
	Estimated November	October	Difference[a]	November	1999	1998
Products Supplied	19.8	19.9	-0.1	18.7	19.4	18.9
Finished Motor Gasoline	8.3	8.5	-0.3	8.2	8.3	8.2
Distillate Fuel Oil	3.8	3.8	(s)	3.3	3.5	3.5
Residual Fuel Oil	0.8	0.7	(s)	0.9	0.8	0.9
Jet Fuel	1.7	1.7	(s)	1.6	1.7	1.6
Other Petroleum Products[b]	5.2	5.2	0.1	4.7	5.0	4.7
Crude Oil Inputs	14.8	14.6	0.2	14.8	14.9	14.9
Operating Utilization Rate (%)	92.0	92.2	-0.2	97.5	93.9	97.0
Imports	9.9	10.4	-0.5	10.9	10.6	10.7
Crude Oil	8.2	8.4	-0.2	8.9	8.6	8.7
Strategic Petroleum Reserve	0.0	(s)	(s)	0.0	(s)	0.0
Other	8.2	8.4	-0.2	8.9	8.6	8.7
Products	1.7	2.0	-0.3	1.9	2.0	2.0
Finished Motor Gasoline	0.3	0.4	-0.1	0.2	0.4	0.3
Distillate Fuel Oil	0.3	0.2	(s)	0.2	0.2	0.2
Residual Fuel Oil	0.2	0.2	(s)	0.3	0.2	0.3
Jet Fuel	0.1	0.1	(s)	0.1	0.1	0.1
Other Petroleum Products[c]	0.9	1.1	-0.2	1.1	1.0	1.1
Exports	0.9	0.9	(s)	0.8	0.9	0.9
Crude Oil	0.1	0.1	0.1	0.1	0.1	0.1
Products	0.8	0.9	-0.1	0.7	0.8	0.8
Total Net Imports	9.0	9.5	-0.5	10.1	9.7	9.8
Stock Change[d]	-1.2	-0.9	-0.3	0.7	-0.3	0.3
Crude Oil	-0.4	-0.1	-0.3	0.3	-0.1	0.1
Products	-0.9	-0.9	(s)	0.4	-0.2	0.2
Total Stocks (million barrels)	1,559	1,579	-20	1,672	—	—
Crude Oil	868	876	-7	904	—	—
Strategic Petroleum Reserve[e]	569	572	-3	569	—	—
Other	299	303	-4	335	—	—
Products	691	704	-13	768	—	—
Finished Motor Gasoline	154	159	-5	168	—	—
Distillate Fuel Oil	134	138	-4	155	—	—
Residual Fuel Oil	39	40	-2	43	—	—
Jet Fuel	41	44	-3	45	—	—
Other Petroleum Products[c]	323	323	(s)	358	—	—

[a] Difference is equal to volume for current month minus volume for previous month.

[b] Includes crude oil product supplied, natural gas liquids, liquefied refinery gases (LRG's), other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and jet fuel.

[c] Includes natural gas liquids, liquefied refinery gases (LRG's), other liquids, and all finished petroleum products except finished motor gasoline, jet fuel, distillate fuel oil, and residual fuel oil.

[d] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[e] Crude oil stocks in the Strategic Petroleum Reserve include non-U.S. stocks held under foreign or commercial storage agreements.

(s) = Less than 0.05 million barrels per day, or less than 0.05 percent, or less than 0.5 million barrels.

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration (EIA), 1998,*Petroleum Supply Annual*, Volume 2; appropriate issues of the *Petroleum Supply Monthly* and the *Weekly Petroleum Status Report*.

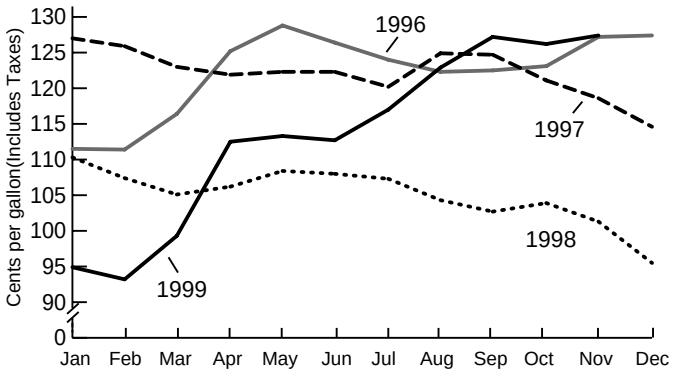
Data for the current month are preliminary estimates, based on weekly submissions. For an explanation of estimation methodology and accuracy, see Appendix A of *Weekly Petroleum Status Report* and the article, "Accuracy of Petroleum Supply Data", published in the October 1998*, Petroleum Supply Monthly.*

Table H2. U.S. Refinery Inputs, Capacities[1] and Utilization Rates: 1998-1999
(Thousand Barrels per Day, Except Where Noted)

Item	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
1998												
Gross Refinery Inputs	14,661	14,262	14,901	15,301	15,464	15,671	15,705	15,806	15,040	14,222	15,095	15,169
Operating Refinery Capacity[2]	15,538	15,558	15,550	15,547	15,573	15,686	15,691	15,685	15,699	15,343	15,478	15,797
Idle Capacity[3]	173	158	184	144	135	135	135	143	129	537	449	154
Idle Three Months or Less	47	20	46	0	0	0	0	14	0	420	369	37
Idle More than Three Months	127	138	138	144	135	135	135	129	129	117	80	117
Operable Refinery Capacity	15,711	15,716	15,735	15,692	15,708	15,821	15,826	15,828	15,828	15,880	15,927	15,951
Utilization Rate (percent)												
Operating Capacity	94.4	91.7	95.8	98.4	99.3	99.9	100.1	100.8	95.8	92.7	97.5	96.0
Operable Capacity	93.3	90.7	94.7	97.5	98.4	99.1	99.2	99.9	95.0	89.6	94.8	95.1
1999												
Gross Refinery Inputs	14,762	14,719	14,802	15,333	15,253	15,195	15,447	15,546	15,353	14,861		
Operating Refinery Capacity[2]	15,953	15,955	16,139	16,140	15,984	16,137	16,134	16,134	16,164	16,118		
Idle Capacity[3]	200	227	131	132	288	139	153	153	153	199		
Idle Three Months or Less	71	98	2	0	158	7	21	48	14	46		
Idle More than Three Months	129	129	129	132	130	132	132	105	139	153		
Operable Refinery Capacity	16,153	16,181	16,270	16,271	16,271	16,276	16,287	16,287	16,317	16,317		
Utilization Rate (percent)												
Operating Capacity	92.5	92.3	91.7	95.0	95.4	94.2	95.7	96.4	95.0	92.2		
Operable Capacity	91.4	91.0	91.0	94.2	93.7	93.4	94.8	95.4	94.1	91.1		

[1]Capacities are on a calendar day basis.
[2]Operating capacity equals the operable capacity less the total idle capacity.
[3] Idle capacity is the component of operable capacity that is not in operation and not under active repair, but is capable of being placed in operation within 30 days; and capacity not in operation but is under active repair that can be completed within 90 days.
Note: Totals may not equal sum of components due to independent rounding.
Sources: Energy Information Administration (EIA), 1998, *Petroleum Supply Annual*, Volume 2, Table 16; EIA, *Petroleum Supply Monthly,* 1999 data issue, Table 28.

Figure H3. Retail Prices for Conventional Motor Gasoline, 1996-current



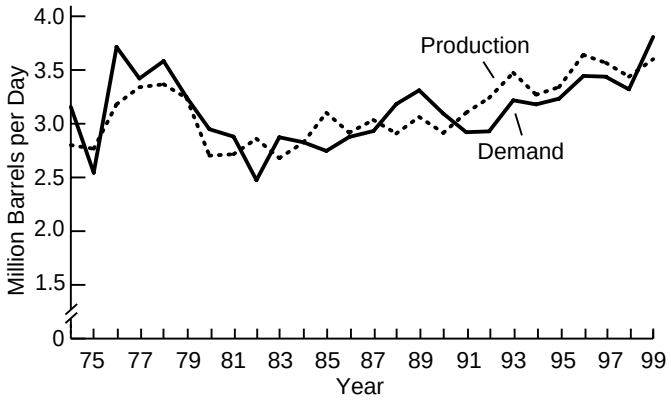
Source: Energy Information Administration, *Weekly Petroleum Status Report,* DOE/EIA-0208 (various issues).

Distillate Fuel Oil

Demand for distillate fuel oil averaged 3.8 million barrels per day, setting a **record high for the month** (Figure H4). While mild weather failed to provide much support for heating oils, fears related to possible computer glitches have been pointed to as the reason for the increased demand.[5] In addition to precautionary moves by end-users and distributers, rail traffic continues at healthy levels providing additional need in the transportation sector.[6] **Production** of distillate fuel oils reached the highest daily average for the month in three years at 3.6 million barrels per day. Distillate fuel oil **imports** averaged 252 thousand barrels per day which was in the upper range for the month. Precautionary stock piling by jobbers and dealers, to minimize supply disruptions related to year 2000 problems has led to secondary level storage fills.[7] Primary stocks were at their lowest level for the month since 1996. Total distillate fuel oil **stocks** ended the month at 133.8 million barrels. At 68.5 million barrels, stocks of low-sulfur distillates were down 5.0 million barrels compared to this time last year. Stocks of high-sulfur, or heating oils, ended the month at 65.3 million barrels, down 15.8 million barrels compared to last November.

[5] "Draw on Stocks Rolls On, But at Uneven Pace", *The Oil Daily*, December 9, 1999, p. 1 & 2.
[6] "Rail Freight Traffic Up in November", *Association of American Railroads*, December 2, 1999, accessible via the Internet at http://www.aar.org/.
[7] "US Refiners Battle Against Weakest Margins of the Decade", *The Oil Daily*, December 15, 1999, p. 2.

Figure H4. Distillate, Year-to-Year November Comparisons, 1974-1999

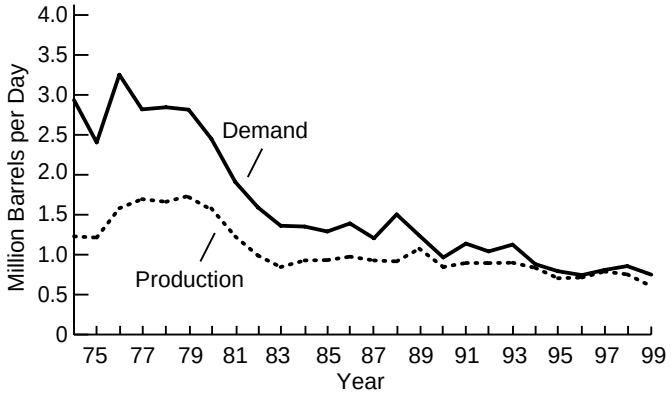


Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

Residual Fuel Oil

Demand for residual fuel oil was sluggish due to the warmer weather and more economical alternatives as power generating utilities favored natural gas while only the shipping sector (which uses residual fuel oil for bunkering) showed much support.[8] **Demand** for residual fuel oil dropped to the lowest average for the month since 1996 at 750 thousand barrels per day (Figure H5). **Production** of residual fuel oil dropped to the lowest level for November in more than three decades averaging 605 thousand barrels per day. Residual fuel oil **imports** averaged 201 thousand barrels per day, low compared to past November averages. **Stocks** ended the month within the normal seasonal range at 38.7 million barrels.

Figure H5. Residual, Year-to-Year November Comparisons, 1974-1999

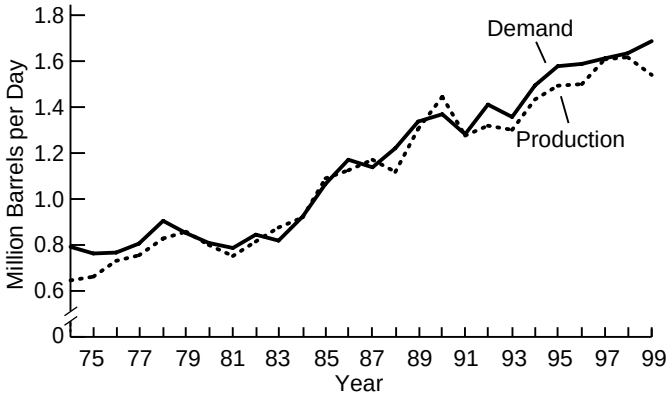


Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

Kerosene-Type Jet Fuel

Demand for kerosene-type jet fuel continues to soar and data for the airline industry implies a greater need for the fuel as more seats were available to travelers.[9] Along with the increasing needs of the air industry, demand for kerosene-type jet fuel also received support from refineries who use the fuel as a winterizing agent for low-sulfur diesel.[10] **Demand** for kerosene-type jet fuel soared to 1.7 million barrels per day in November, **a record high for this time of year** (Figure H6). At an average of 1.5 million barrels per day, **production** of kerosene-type jet fuel was only 77 thousand barrels per day from the record for November set last year. **Imports** of total jet fuel, kerosene- and naphtha-type, were within the normal seasonal range averaging 108 thousand barrels per day. **Stocks** of kerosene-type jet fuel were 4.4 million barrels below this time last year at 41.1 million barrels.

Figure H6. Kerojet, Year-to-Year November Comparisons, 1974-1999



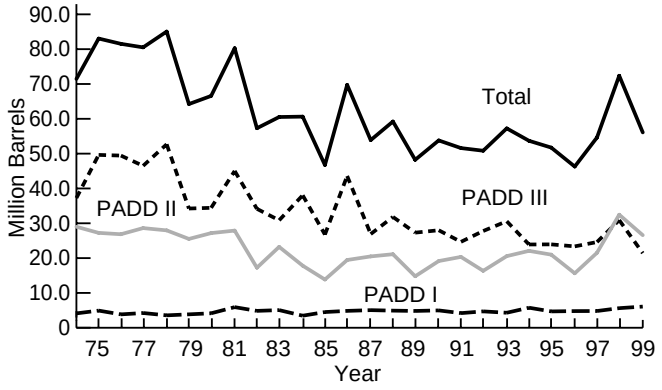
Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

Propane

Mild temperatures during November, particularly in some of the major propane consuming regions of the Nation, left U.S. month-end inventories at the second highest level for the month since 1993. This occurred even thought U.S. inventories ended the month 16.3 million barrels lower than last November's unusually high total. Propane inventories ended the month within the normal seasonal range at 56.1 million barrels, indicating a smaller than normal seasonal draw (Figure H7). Compared to last year, East Coast propane stocks increased 441 thousand barrels for a total of 6.1 million barrels. Inventories were static along the Gulf Coast and increased 394 thousand barrels in the Midwest stocks. Inventories in the Gulf Coast totaled 21.4 million barrels while the Midwest totaled 26.6 million barrels. East Coast stocks were the only region to end the month above the normal seasonal range. Propane stocks in the Midwest were towards the upper limit of the normal range and Gulf Coast inventories ended the month below normal.

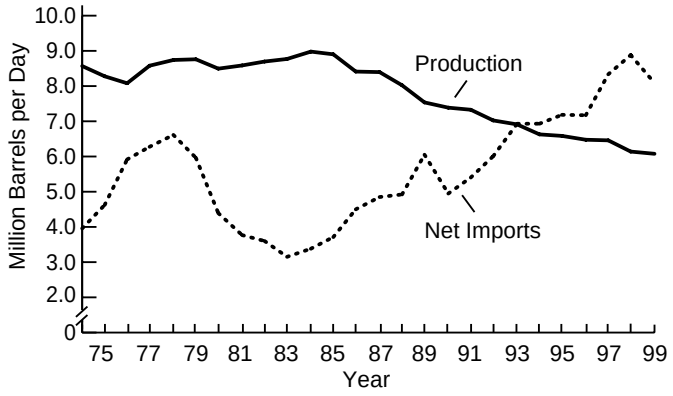
[8] "New York fuel oil recovering slowly from record Nov lows", *Platt's Oilgram Price Report*, November 29, 1999, p. 1 & 4.
[9] "Preliminary Scheduled Passenger Traffic Statistics", *Air Transport Association*, December 13, 1999, accessible via the Internet at http://www.air-transport.org/.
[10] "Atlantic Coast: Jet cruises higher on tight supply, winter's pull", *Platt's Oilgram Price Report*, November 24, 1999, p. 3.

Figure H7. Propane Stocks, Year-to-Year November Comparisons, 1974-1999



Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

Figure H8. Crude Oil, Year-to-Year November Comparisons for Production and Net Imports, 1974-1999



Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

Crude Oil

Domestic **production** of crude oil dropped to the **lowest daily average for November in 49 years** at 6.1 million barrels per day (Figure H8). Alaskan field production of crude oil averaged only 1.0 million barrels per day, **down 11.6 percent compared to this time last year**. Alaskan crude production was affected by the warm temperatures, multiple power outages at Prudhoe Bay, and an eight-hour shutdown of the Trans-Alaskan Pipeline System for planned maintenance.[11] Imports of crude oil were down 8.3 percent compared to last November's record high daily average. Crude oil **imports** averaged 8.2 million barrels per day. Net imports of crude oil were also down for the month, averaging 8.1 million barrels per day. Imports of crude slowed in November thanks to higher crude oil prices and end-of-year accounting practices which dictate lower crude oil inventories.[12] Along with strong compliance in production cuts among OPEC members, further tightening in the crude oil market came late in the month as the sixth phase of the United Nations "oil-for-food" deal came to a close and the Iraqi government rejected a two-week extension to the program.[13] The crude oil price recovery left OPEC's "basket" price for crude oil at an average of $23.74 a barrel for November.[14]

Stocks of crude oil, excluding the SPR, ended the month at their lowest level since February 1997 and the lowest for November since 1976. Excluding the SPR inventories, crude oil **stocks** ended the month at 299.0 million barrels. Compared to this time last year, crude oil stocks are down 36.3 million barrels. Total stocks of crude oil, including stocks in the SPR, ended the month at the lowest month-end total since December 1997. Total crude oil stocks ended the month at 868.3 million barrels; this includes non-U.S. stocks held under foreign or commercial storage agreements.

Refinery Operations

Crude oil **inputs** averaged 14.8 million barrels per day, the highest average for the month since the 1978 record high (Figure H9). The estimated refinery **operable utilization rate** (gross input divided by operable capacity), averaged 91.2 percent of capacity compared to 94.8 percent last November. During November, the Federal Trade Commission (FTC) approved a consent order for the mega-merger between Exxon Corp. and Mobil Oil Corp. While the formation of the Exxon Mobil Corp. was approved, the FTC expressed concern over the proposed merger between BP Amoco PLC and the Atlantic Richfield Co. (ARCO).[15]

Figure H9. Year-to-Year November Comparisons for Crude Oil Inputs, 1974-1999

Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

[11] "FY 2000 ANS Production", *Alaska Department of Revenue*, November 1999, accessible via the Internet at http://www.revenue.state.ak.us/oga/.
[12] "Marketview-Trying to Do Without", *Petroleum Intelligence Weekly*, December 6, 1999, p. 6.
[13] "Iraq, protesting UN moves, halts exports", *Platt's Oilgram News*, November 23, 1999, p. 1 & 5.
[14] "OPEC weekly basket falls 32 cts/bbl", *Platt's Oilgram Price Report*, December 7, 1999, p. 9.
[15] "Mega-Mergers Hit The Limit, Say US Regulators", *Petroleum Intelligence Weekly*, December 6, 1999, p. 1 & 4.